



UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
-----------------	-------------	----------------------	---------------------

09/446,326 12/20/99 DELP

R MERCK 2038

IM31/0503
MILLEN WHITE ZELAND & BRANIGAN
ARLINGTON COURTHOUSE PLAZA I
SUITE 1400
2200 CLARENDON BOULEVARD
ARLINGTON VA 22201

EXAMINER

NGUYEN, K

ART UNIT

PAPER NUMBER

1774

DATE MAILED:

05/03/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/446,326

Applicant(s)

DELP ET AL.

Examiner

Kimberly T. Nguyen

Art Unit

1774

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL.
- 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claims ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☐ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.

- 18) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other:

DETAILED ACTION

Specification

The disclosure is objected to because of the following informalities: The term "PS" in line 19, page 2 of the applicant has not been previously defined. In addition, the terms "PBT" and "PET" in line 23, page 2 have not been previously defined in the specification.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The term "characterized in that" in claims 1-12 is a relative term which renders the claim indefinite. The term "characterized in that" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Changing the term "characterized in that" to "wherein" would bring the scope of the claims within accepted U.S. practice. ✓

Claim 1 is rejected because the term "intrinsically" is unclear. What is an intrinsically laser-markable polymer? The term "intrinsically" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. It is the examiner's suggestion that the term "intrinsically" be omitted from the claims. ✓

The term "difficult" in claim 1 is a relative term which renders the claim indefinite. The term "difficult" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. ✓

Claims 4 and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 4 and 8 recite the limitation "the plastic system" in lines 19 and 37, respectively. There is insufficient antecedent basis for this limitation in the claim. ?
Furthermore, the plastic system has not been defined in the specification.

Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 5 shows that the particle structure of the intrinsically markable polymer is "retained in" the plastic. It is unclear as to what is meant by "retained in" since it is apparent that the plastic comprises the polymer as already stated in claim 1. ✓

Claim 8 recites the limitation "the light sensitive pigments" and "the plastic system" in lines 36 and 37, respectively. There is insufficient antecedent basis for this limitation in the claim. ✓

Claim 11 provides for the use of the laser-markable plastics according to claim 1 as material for producing mouldings which are marked with the aid of lasers, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced. ✓

Claim 11 is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd. App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966). ✓

2. The phrase "high-temperature-resistant plastic" in claim 2 is a relative term which renders the claim indefinite. The term "high" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The specification shows that micromilled thermoplastics with melting temperatures of 300 degrees Celsius or greater are suitable, but does not define that a "high-temperature-resistant plastic" is known as having a melting point of 300 degrees Celsius or more. ✓

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 95/30716 in further view of EP 0 367 629.

WO 95/30716 shows laser markable plastics which are difficult to be marked by a laser such as polyoxymethylene, polyester, polyethylene, polypropylene, polymethyl methacrylate (PMMA), and polyamides (page 2, line 33 to page 6, line 17). The plastics are used to make

moulds and contain from .05 to 10% of absorber material that can be laser-marked. WO 94/30716 shows that the absorber material is a polymer such as polyimides and that the polymer particles have a diameter of 1 to 100 μm (page 25, lines 1-25). The plastic may also contain up to about .02% of light-sensitive pigments such as metal oxides (page 20, line 24 to page 21, line 8).

WO 95/30716 does not specifically show that the absorber material is a high-temperature-resistant plastic; however, it would have been obvious to one of ordinary skill in the art to use a polyimide as the absorber material because it is known as a high temperature resistant plastic. WO 95/30716 also does not show that the laser-markable plastics comprise colour pigments, yet it shows the use of light-sensitive pigments. Furthermore, although WO 95/30716 shows that the plastics are used to produce molded bodies, it does not show moldings which consist of the laser-markable plastic according to Applicant's claim 1.

EP 0 367 629 shows a polymer composition which can be laser marked and contains a polymer dispersed as a light-scattering particle (absorber material) which can be used in various products (page 2, lines 1-2). Suitable particles include polysulphones, polyimides, polyphenylene sulphides, and liquid crystal polymers (page 2, lines 23-25) and comprise .5 to 15% of the composition of the plastic (page 2, lines 11-13). In addition, EP 0 367 629 shows that the plastics may include pigments along with other minor additives (page 2, lines 20-22). Claim 6 of EP 0 367 629 shows any particle having a surface made of the plastic composition with the surface being laser-markable (page 6, lines 9-10). Although claim 6 of EP 0 367 629 shows that the surface is made of the polymer composition, it would be obvious to use the

composition of EP 0 367 629 in moldings because the laser-marking is carried out to mark the surface of such products.

It would be obvious to one of ordinary skill in the art at the time the invention was made to employ the color pigments of EP 0 367 629 in the laser-markable plastics of WO 95/30716 because the invention of WO 95/30716 employs the light-sensitive pigments to impart a particular color.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Kimberly Nguyen whose telephone number is (703) 308-8176. The examiner can normally be reached on Monday through Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia H. Kelly, can be reached at (703) 308-0449. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-5408 for regular communications and (703) 305-3559 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Kimberly T. Nguyen
Examiner
Art Unit 1774

CYNTHIA H. KELLY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700

